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REPORT
TO
PARKING AUTHORITY OF SAN FRANCISCO
ON A

NEIGHBORHOOD SHOPPING DISTRICT PARKING NEED

REPORT NO. 1
CITY-WIDE PARKING SURVEY

JUNE, 1976

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REPORT

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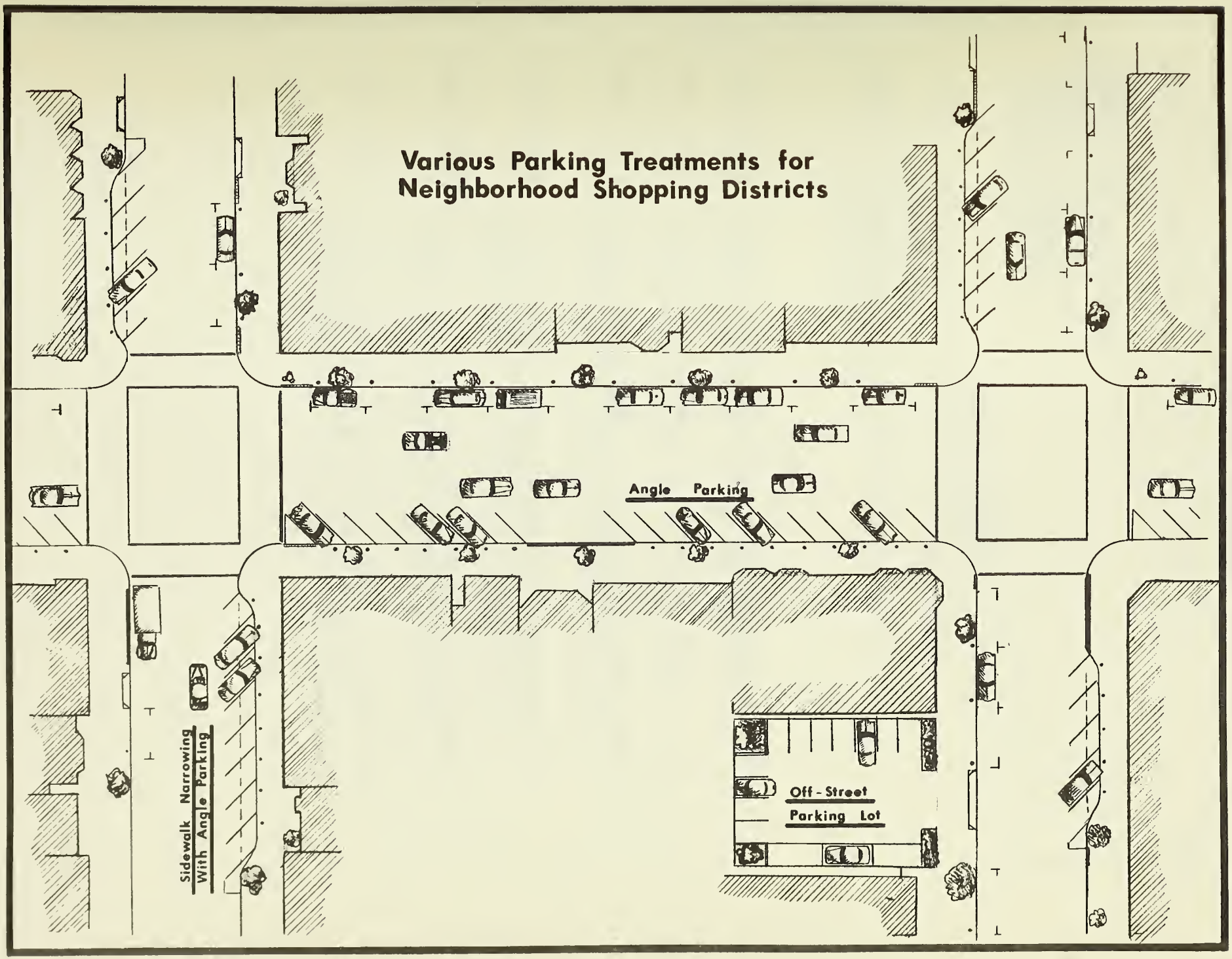
Various Parking Treatments for
Neighborhood Shopping Districts
Angle Parking
Sidewalk Narrowing
With Angle Parking
Off-Street
Parking Lot

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CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF PUBLIC WORKS

June 11, 1976

BUREAU OF
ENGINEERING

351 CITY HALL
SAN FRANCISCO
CALIFORNIA
94102

City-Wide Neighborhood Shopping
District Parking Survey
File #20B

Mr. Arthur S. Becker, Director
The Parking Authority
City and County of San Francisco
450 McAllister Street, Room 603
San Francisco, CA 94102

Dear Mr. Becker:

Enclosed herewith is Report No. 1 of a study entitled "Report to Parking Authority of San Francisco on a Neighborhood Shopping District Parking Need."

This report presents the results of the first phase of a 2-part study performed by the Department of Public Works to re-evaluate the existing municipal parking lots and the need for more additional off-street parking facilities in the neighborhood shopping districts.

Report No. 1 primarily contains the results of parking surveys conducted during the Fall of 1975 in various neighborhood shopping districts in the City. As will be shown in this report, there is presently an apparent shortage of 2,191 parking spaces existing in 48 neighborhood shopping districts and 22 municipal parking lots. Assuming that increasing the level of police enforcement of time-limit parking would reduce long-term parking by 50%, a shortage of 1,250 parking spaces was found to exist.

Based on the present parking supply in the various neighborhood shopping districts and the expected future increases in parking demands, it is estimated that a possible shortage of 2,336 parking spaces may exist in the year 1990. To relieve such present and future parking deficiencies, the following step-by-step procedures are recommended in the report:

1. Initiate time-limit parking on the main and side streets.

2. Install parking meters on the main and side streets.

3. Narrow sidewalks wherever possible and establish metered angle parking.

4. Construct metered off-street parking facilities in the districts.

Although no specific procedures are suggested for individual shopping districts in this report, a follow-up report will cover detailed recommendations for neighborhood shopping districts having substantial parking shortages.

Very truly yours,

Jeffrey Lee
City Engineer

CITY-WIDE NEIGHBORHOOD SHOPPING DISTRICT PARKING SURVEY

INTRODUCTION

This report presents the results of a City-Wide Neighborhood Shopping District Parking Survey conducted during the Fall of 1975 to gather information on the parking demand in San Francisco's neighborhood shopping districts. This study was performed to re-evaluate the existing municipal parking lots and the need for additional parking facilities in the neighborhood shopping districts. A similar City-wide study was undertaken in 1959.

This study was funded in the amount of $27,000 from the Off-Street Parking Fund.

SUMMARY AND CONCLUSION

From this parking survey of 48 neighborhood shopping districts and 22 municipal parking lots, an apparent shortage of 2,191 parking spaces was found to exist. With an increased level of police enforcement of time-limit parking to reduce long-term parking by 50%, this survey revealed a shortage of 1 250 parking spaces. By projecting parking demands to the year 1990, it was found that a possible shortage of 2,336 parking spaces may exist based on the present parking supply.

To alleviate such parking deficiencies as they occur, the following step-by-step procedures are proposed:

1. Initiate time-limit parking on the main and side streets.
2. Install parking meters on the main and side streets.
3. Narrow sidewalks wherever possible and establish metered angle parking.
4. Construct metered off-street parking facilities in the districts.

METHOD OF SURVEY

Forty-eight neighborhood shopping districts were identified within the City for Study as to the extent of their parking needs.

These districts encompass 82.3 miles of curbside parking as well as 22 municipal parking lots. License plates were recorded at periodic intervals during the time of heaviest parking demand in the areas. From this data, information was derived concerning turnover rates, overtime parking, parking space occupancy, commercial vehicle parking demand, illegal parking, and other relevant data.

The following conditions were set up on the conduct of the survey:

1. The survey period in each shopping district would cover 2 days: a Friday between the hours of 3 p.m. and 6 p.m., and a Saturday between the hours of 12 noon and 6 p.m.
2. The Council of District Merchants Association was asked not to conduct special sales in the districts to be surveyed at the time of the survey.
3. All municipal off-street and on-street facilities in the areas were to be surveyed.
4. All legally and illegally parked vehicles were to be recorded.
5. Meter violations were to be recorded.

With the conditions for the survey established, a complete tabulation of the curb parking areas in the core and tributary sections (depth of commercial property) of each neighborhood shopping district was prepared for the survey.

To perform the field survey, 125 college students were hired for this phase of the study. Supervisory roles were performed by

employees of the Bureau of Engineering. The principal field work for each shopping district was done over a 2-day period, totaling 9 hours. During the course of the survey, approximately 1,230 block faces were covered and data was recorded on the parking practices of approximately 111,500 vehicles. This comprehensive field work, covering the 48 neighborhood shopping districts in the City, was carried out over several weekends. The dates on which the survey was conducted in the shopping districts were October 17 and 18, October 24 and 25, November 8, and November 14, 1975.

METHOD OF ANALYSIS

A survey of such a large scope, with data collected on nearly 111,500 vehicles, requires a considerable amount of time for analysis. However, by utilizing some of the abler students who participated in the survey, the data reduction was accomplished within a period of 20 days.

During the data reduction, the following procedures were used in determining parking shortages in each neighborhood shopping district:

1. The occupancy rate of parking spaces was to be the standard base for determining shortages.
2. The most critical parking period covering a whole hour (peak hour) on either Friday or Saturday was to be used to determine parking shortages.
3. The number of automobiles parked at any given time, including those which were illegally parked (in red, white, and yellow zones, drop curbs, and double-parked), was considered to be the demand at that time.
4. The number of legal parking spaces minus those which were occupied by commercial vehicles was considered to be the available

parking supply.

5. The maximum desirable occupancy rate was set at 85%. Therefore, if demand exceeded 85% of the available parking supply, a parking shortage was assumed equal to the number of cars demanding parking space over the 85% rate. With these standards, the existing parking shortage in any block that was studied may be determined.
6. The analysis was predicated on two levels of police enforcement of parking time limits. First, present shortages were determined with no change in the existing enforcement program. Second, present and future shortages were determined under a stepped-up enforcement program which would presumably force 50% of the motorists parking over 2 hours at the curb to seek parking spaces off the business street. The analysis with the stepped-up enforcement program was felt to be a reasonable assumption, since practically no shoppers in neighborhood districts stay for over 2 hours, and a true view of the shortages would only occur with the partial elimination of time-limit violators.

SUMMARY OF RESULTS

The analysis revealed that under existing enforcement practices, there is an apparent shortage of 2,191 parking spaces in the 48 surveyed neighborhood shopping districts. Under a stepped-up enforcement program, which would presumably divert 50% of the long-term parkers and other illegal parkers to seek parking spaces away from the business street, this shortage would be reduced to 1,250 parking spaces.

Listed in Table 1 are the shortages for each shopping district corresponding to the 2 different levels of enforcement of parking time limits.

TABLE 1: NEIGHBORHOOD SHOPPING DISTRICT PARKING SHORTAGES

SURVEY AREA	Existing Enforcement	Predicated on Increased Level of Enforcement			
	Shortage	Shortage			Annual Demand Increase
	1975	1959	1975	1990*	
1. SACRAMENTO ST. Laurel to Lyon	23	9	22	34	0.8
2. CALIFORNIA ST. Laurel to Maple	17	-	17	33	1.1
3. CALIFORNIA ST. 4th to 7th Aves.	31	0	22	48	1.7
4. CLEMENT ST. Arguello to 12th Avenue	73	35	40	92	3.5
5. CLEMENT ST. 19th to 27th Aves.	17	0	15	29	0.9
6. CLEMENT ST. 31st to 33rd Aves.	4	-	4	8	0.3
7. GEARY BLVD. Masonic to 4th Aves.	28	29	18	40	1.4
4th to 19th Aves.	57		37	82	3.0
19th to 29th Aves.	38		19	42	1.5
8. BALBOA ST. 2nd to 8th Aves.	16	0	16	31	1.0
9. BALBOA ST. 32nd to 43rd Aves.	0	0	0	0	--
10. DIVISADERO ST. McAllister to Haight Sts.	11	0	0	0	--
11. HAIGHT-ASHBURY DISTRICT	41	24	18	12	--
12. COLE ST. Parnassus Ave. to Carl St.	13	4	3	3	--
13. IRVING ST. & 9TH AVE.	76	20	46	100	3.5

*Estimated based on projected demand and existing supply.

TABLE 1 (continued)

SURVEY AREA	Existing Enforcement Shortage	Predicated on Increased Level of Enforcement Shortage			Annual Demand Increase
	1975	1959	1975	1990*	
14. IRVING ST.					
19th to 24th Aves.	10	36	0	18	0.8
24th to 27th Aves.	0		0	0	--
15. JUDAH ST.					
27th to 32nd Aves.	0	0	0	0	--
16. JUDAH ST.					
43rd to 47th Aves.	0		0	0	--
17. NORIEGA ST.					
19th to 27th Aves.	10	12	0	0	--
18. NORIEGA ST.					
30th to 33rd Aves.	0		0	0	--
19. NORIEGA ST.					
44th to 47th Aves.	0		0	0	--
20. TARAVAL ST.					
14th to 19th Aves.	2	3	0	0	--
19th to 22nd Aves.	0		0	0	--
22nd to 30th Aves.	0		0	0	--
30th to 33rd Aves.	4		2	2	--
21. WEST PORTAL DISTRICT	22	17	10	37	1.8
22. MIRALOMA DISTRICT	2	0	0	0	--
23. LAKESIDE VILLAGE DISTRICT	4	4	0	0	--
24. OCEAN AVE. East of Junipero Serra Blvd.	0	-	0	0	--
25. OCEAN AVE. Harold to Lakewood Aves.	0	0	0	0	--
26. GLEN PARK DISTRICT	7	5	5	5	--

*Estimated based on projected demand and existing supply.

TABLE 1 (continued)

SURVEY AREA	Existing Enforcement	Predicated on Increased Level of Enforcement			
	Shortage	Shortage			Annual Demand Increase
	1975	1959	1975	1990*	
27. MISSION ST. & RICHLAND AVE.	0	0	0	0	--
28. MISSION ST. & TRUMBULL ST.	0	--	0	0	--
29. MISSION ST. Silver to Amazon St.	37	22	16	35	1.3
30. GENEVA AVE. Vicinity of Mission St.	3	16	0	0	--
31. VISITACION VALLEY DISTRICT	0	0	0	0	--
32. PORTOLA DISTRICT	11	18	1	0	--
33. BAYVIEW DISTRICT	10	4	0	8	0.5
34. CORTLAND AVE. Folsom to Bonview Sts.	0	10	0	0	--
35. MISSION ST. Army to Randall Sts.	32	18	19	20	0.1
36. CHURCH ST. Valley to 30th Sts.	10	--	8	17	0.6
37. NOE VALLEY DISTRICT	68	13	53	100	3.3
38. 24TH ST. So. Van Ness to San Bruno Ave.	71	32	52	71	1.3
39. MISSION DISTRICT Market to 16th Sts.	34		0	0	--
16th to 24th Sts.	188	151	126	108	--
24th to Army Sts.	45		11	9	--

*Estimated based on projected demand and existing supply.

TABLE 1 (continued)

SURVEY AREA	Existing Enforcement	Predicated on Increased Level of Enforcement			
	Shortage	Shortage			Annual Demand Increase
	1975	1959	1975	1990*	
40. MARKET ST. 17th to Valencia Sts	29	0	7	20	0.5
41. EUREKA VALLEY DISTRICT	66	20	56	126	4.7
42. DIVISADERO ST. California to Geary Blvd.**	92	0	88	150	4.7
43. FILLMORE ST. Jackson to Pine Sts.	55	80	29	35	--
Pine to O'Farrell Sts.	6		0	0	--
44. POLK ST. Filbert St. to Broadway	35		35	70	2.4
Broadway to California St.	131	11	61	120	4.2
California to Post Sts.	220		100	200	6.9
45. NORTH BEACH DISTRICT	184	80	80	180	6.4
CHINATOWN DISTRICT	197		132	290	10.6
46. UNION ST.	82	16	56	90	2.4
47. MARINA DISTRICT	79	48	26	71	3.0
48. SANTA ROSA & SAN JOSE AVES.	0	0	0	0	--
TOTALS	2,191	737	1,250	2,336	

*Estimated based on projected demand and existing supply.
**Hospital is located within survey area.

Under existing enforcement practices, Table 1 lists 36 districts that have parking shortages. The bulk of the shortage is concentrated in 13 districts. With an increased level of enforcement, 29 of the districts listed in Table 1 have parking shortages, with the bulk again concentrated in 13 districts. Plates STR-5526.1 through 5526.4 show the locations of these shortages.

Also included in Table 1 are the parking shortage results from the 1959 survey, as well as parking shortage projections for the year 1990 predicated on the increased level of enforcement of parking time limits. As indicated, a shortage of 2,336 parking spaces is projected for the year 1990 in the 48 neighborhood shopping districts. This shortage can be expected to be greater or lesser, depending on the rate of growth of business activity and whether parking enforcement is increased sufficiently enough to reduce the number of long-term parkers in the future. The locations of the parking shortages projected for the year 1990 are shown on Plates STR-5526.5 and 5526.6.

To assess the utilization of the 22 municipal off-street parking lots surveyed in the various neighborhood shopping districts, the number of vehicles parked in each lot was determined during the hour of peak parking demand in the district. A majority of the municipal parking lots were found to be well utilized. The results are shown in Table 2:

TABLE 2: NEIGHBORHOOD SHOPPING DISTRICT PARKING FACILITIES

DISTRICT	No. of Parking Stalls	No. of Vehicles* Parked
1. EUREKA VALLEY (Castro St.)	21	25
2. EUREKA VALLEY (Collingwood St.)	20	21
3. WEST PORTAL (West Portal Ave.)	20	19
4. WEST PORTAL (Claremont-Ulloa Sts.)	24	19
5. GEARY (Geary Blvd.)	22	23
6. GEARY (18th-19th Aves.)	36	32
7. INNER IRVING (8th-9th Aves)	37	36
8. OUTER IRVING (20th Ave.)	24	16
9. NOE VALLEY (24th St.)	16	18
10. PORTOLA (Felton St.)	15	10
11. MISSION (16th & Hoff Sts.)	72	66
12. MISSION (24th & Capp Sts.)	20	20
13. MISSION-BARTLETT PARKING PLAZA	228	203
14. CLEMENT (8th Ave.)	33	31
15. CLEMENT (9th Ave.)	28	22
16. LAKESIDE (JUNIPERO SERRA & OCEAN AVE.)	22	17
17. LAKESIDE (19th & Ocean Aves)	20	16
18. NORTH BEACH (Vallejo St.)	163	163
19. MARINA (Pierce St.)	82	74
20. POLK (REDDING SCHOOL)	40	33
21. EXCELSIOR (Norton-Harrington Sts.)	30	17
22. BAYVIEW (Palou-Mendell Sts.)	14	4
	987	885

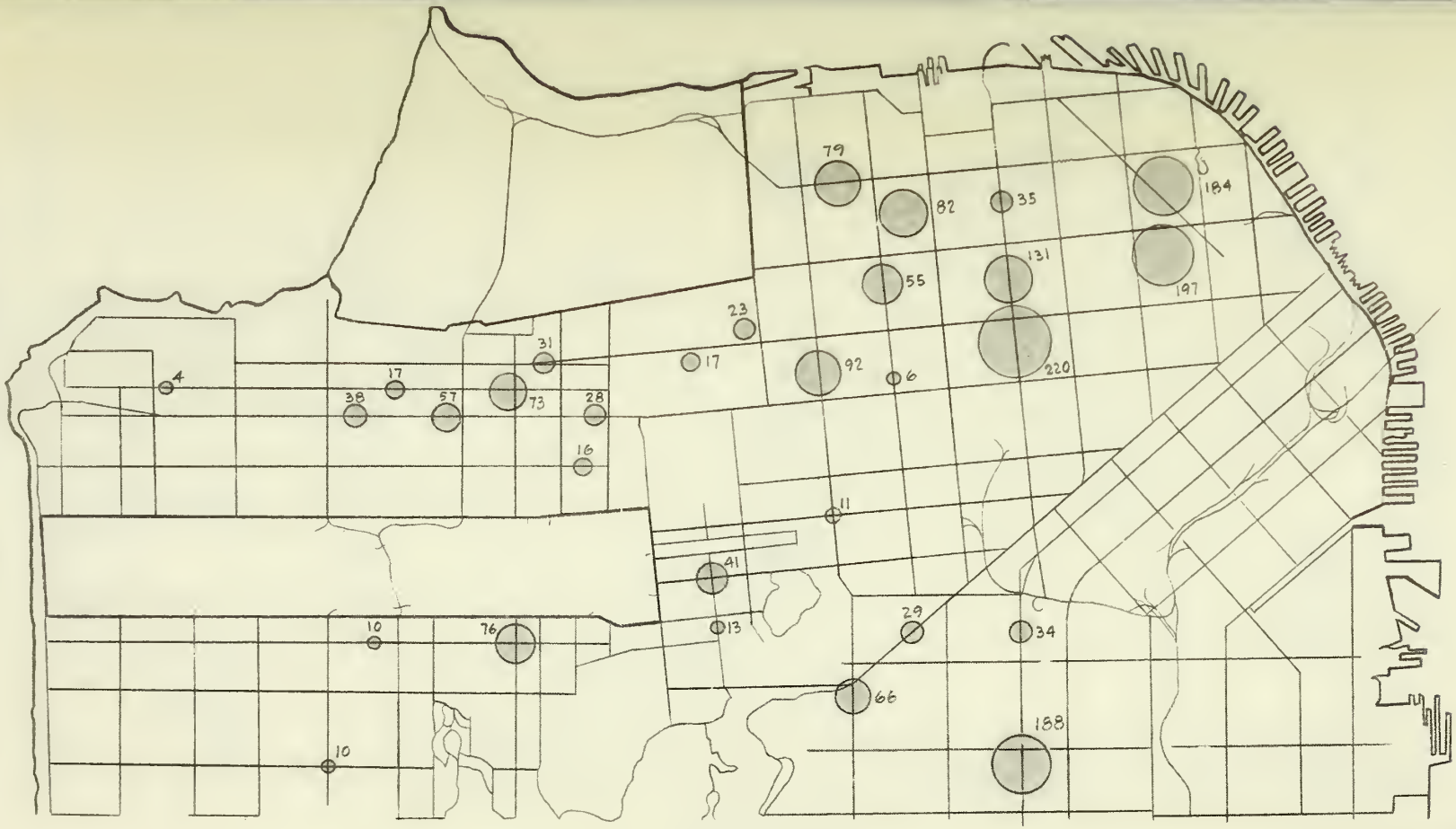
*During the hours of peak parking demand in the district.

RECOMMENDATIONS

To relieve present and future parking deficiencies, it is the policy of the City regarding parking in neighborhood shopping districts to first recommend initiating time-limit parking if none presently exists. Time-limit parking should be incorporated on the main streets and then extended to the side streets to the depth of commercial property. Additionally, police enforcement should be provided to control long-term parking in these districts. If a shortage still exists the next procedure would be the installation of parking meters within the districts, followed by sidewalk narrowing, and the establishing of metered angle parking spaces. The final step to increase the number of available parking spaces in a district would be to recommend construction of an off-street parking facility.

Although lots in the Neighborhood Shopping District Parking Program were found to be well used, no specific sites are recommended for off-street parking facilities in this report. However, if an off-street parking facility becomes a necessity in any particular shopping district the following points should be followed:

1. Parking facilities should be located near parking generators where shortages exist to insure usage.
2. Meters should be installed in the facility in order to provide low unit operating cost and low rates to serve the short-term parker.
3. Facilities should be a minimum size of 20 spaces. Parking shortages on the order of 20 spaces or less can probably be better handled by the extension of parking meters onto the business side streets rather than by constructing an off-street parking lot.



1975

PARKING SPACE SHORTAGES IN NEIGHBORHOOD AREAS

NORTHERN HALF OF SAN FRANCISCO

	BY	DATE
DR.	[illegible]	[illegible]
TR.		
CK.	[illegible]	5/3/76
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CITY AND COUNTY OF SAN FRANCISCO

DEPARTMENT OF PUBLIC WORKS - BUREAU OF ENGINEERING

NEIGHBORHOOD SHOPPING DISTRICT PARKING PROGRAM

APPROVED Jeffrey Heer

DATE 6/4/76 CITY ENGINEER

SCALE No Scale

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FILE STR-5526.1

CHANGE

1975

PARKING SPACE SHORTAGES IN NEIGHBORHOOD AREAS

SOUTHERN HALF OF SAN FRANCISCO

LEGEND

PARKING SPACE SHORTAGES ● No of Spaces

	BY	DATE
DR.		
TR.		
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CITY AND COUNTY OF SAN FRANCISCO

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NEIGHBORHOOD SHOPPING DISTRICT PARKING PROGRAM

APPROVED Jeffrey Lee

DATE 6/4/76 CITY ENGINEER

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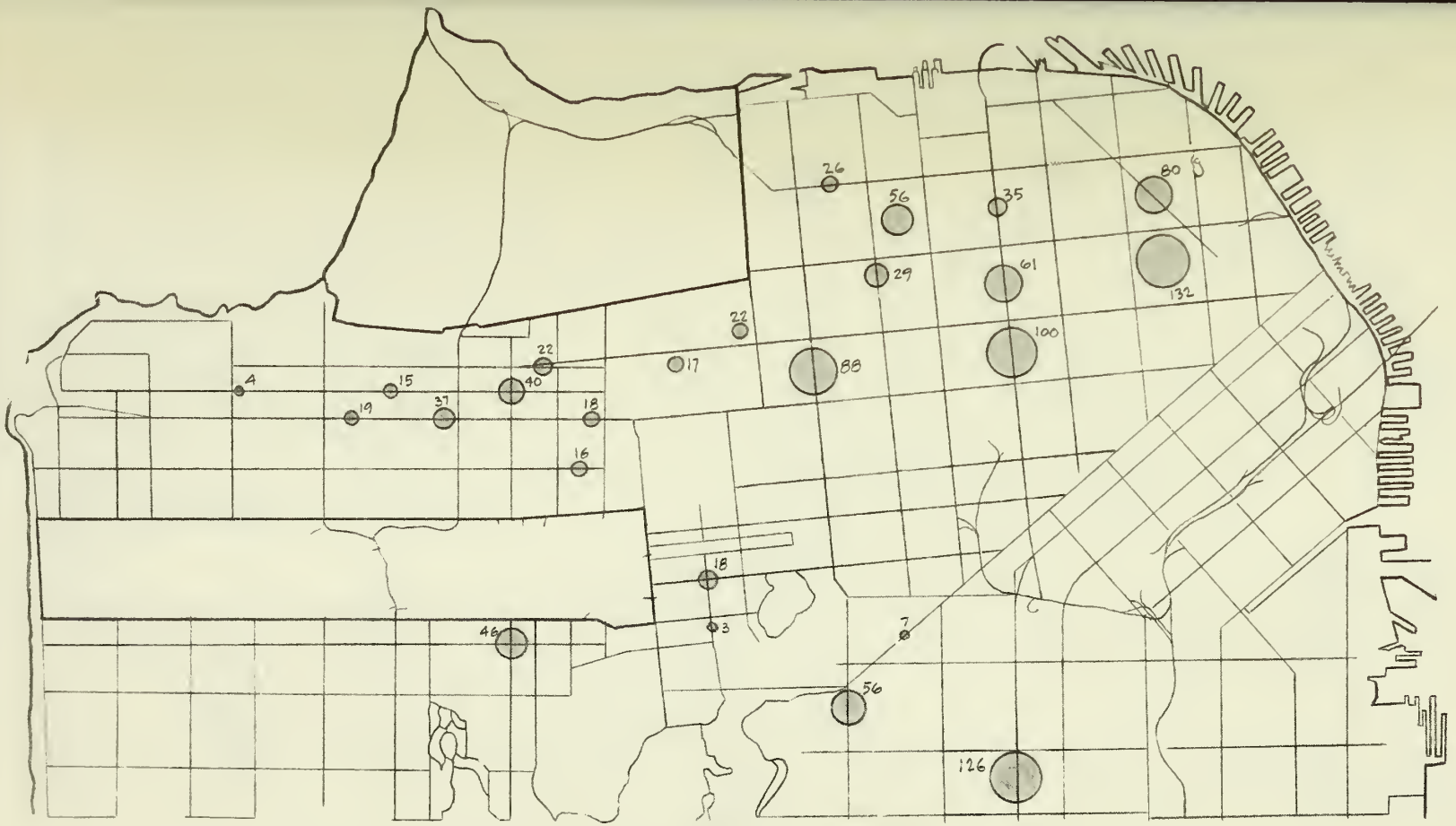

1975

PARKING SPACE SHORTAGES IN NEIGHBORHOOD AREAS

(PREDICATED ON INCREASED LEVEL OF ENFORCEMENT)

NORTHERN HALF OF SAN FRANCISCO

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NEIGHBORHOOD SHOPPING DISTRICT PARKING PROGRAM

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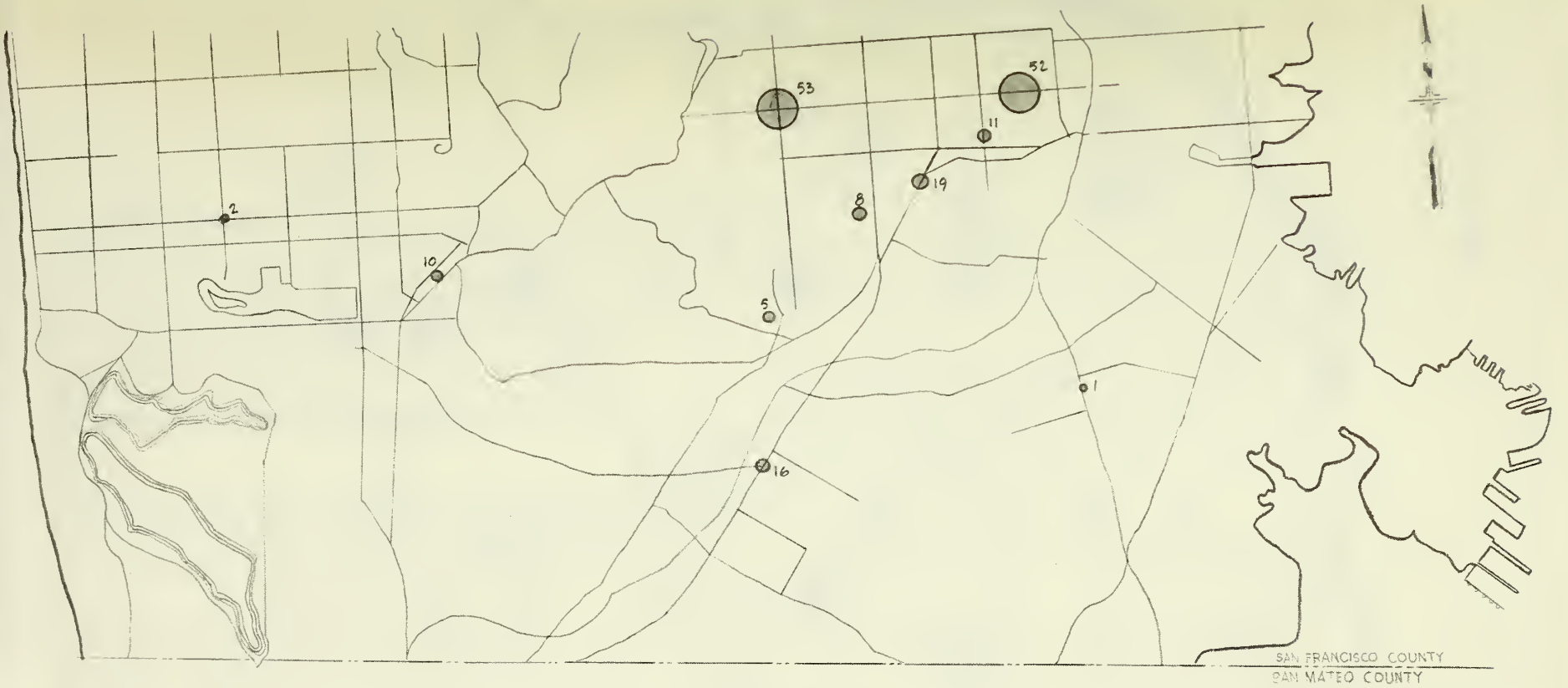

1975

PARKING SPACE SHORTAGES IN NEIGHBORHOOD AREAS

(PREDICATED ON INCREASED LEVEL OF ENFORCEMENT)

SOUTHERN HALF OF SAN FRANCISCO

LEGEND

PARKING SPACE SHORTAGES ● No. of Spaces

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CITY AND COUNTY OF SAN FRANCISCO

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NEIGHBORHOOD SHOPPING DISTRICT PARKING PROGRAM

APPROVED Jeffrey Lee

DATE 6/14/76 CITY ENGINEER

SCALE No Scale

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FILE STR-5526.4

CHANGE

LEGEND

PARKING SPACE SHORTAGES — No. of Spaces

FUTURE
PARKING SPACE SHORTAGES IN NEIGHBORHOOD AREAS
(PREDICATED ON INCREASED LEVEL OF ENFORCEMENT)

NORTHERN HALF OF SAN FRANCISCO

	BY	DATE
DR.		
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CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF PUBLIC WORKS - BUREAU OF ENGINEERING

NEIGHBORHOOD SHOPPING DISTRICT PARKING PROGRAM - 1975
1990 PROJECTIONS

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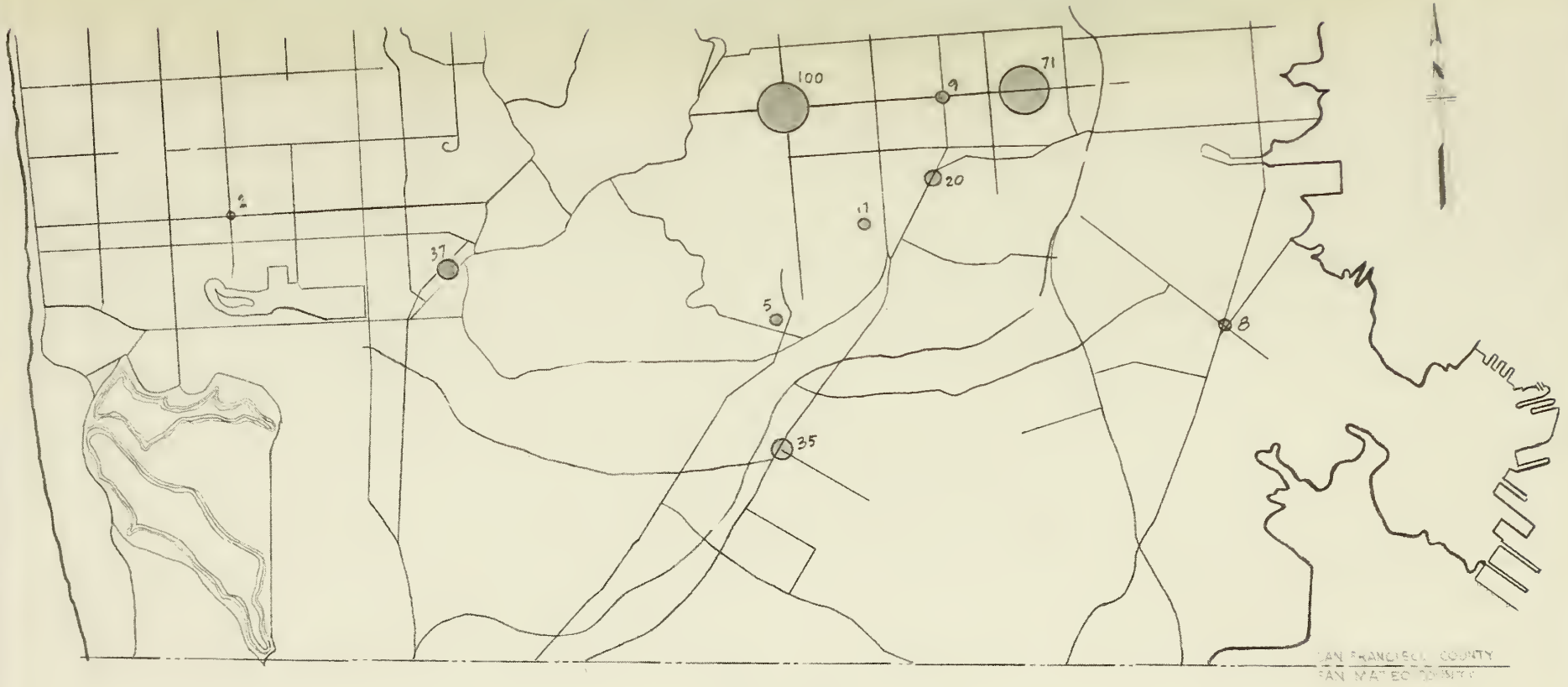

FUTURE
PARKING SPACE SHORTAGES IN NEIGHBORHOOD AREAS
(PREDICATED ON INCREASED LEVEL OF ENFORCEMENT)
SOUTHERN HALF OF SAN FRANCISCO

LEGEND
PARKING SPACE SHORTAGES ● No. of Spaces

	BY	DATE
DR.		
TR.		
CK.	[illegible]	5/3/76
APP.	MDR	5/3/76
APP.	[illegible]	[illegible]

CITY AND COUNTY OF SAN FRANCISCO
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NEIGHBORHOOD SHOPPING DISTRICT PARKING PROGRAM - 1975
1990 PROJECTIONS

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FILE STR-5526.6

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